



453851

MEMORANDUM

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRC*SI = D to RCRA**J6 11/13/92*

Date: November 6, 1992

To: Jeanne Griffin, U.S. Environmental Protection Agency

From: Stan Lynn, PRC Environmental Management, Inc.

Subject: Contract No. 68-W8-0084
Assignment No. 29-5JZZ
Heekin Can, Inc. OHD 004 253 225
Cincinnati, Hamilton County, Ohio

Introduction

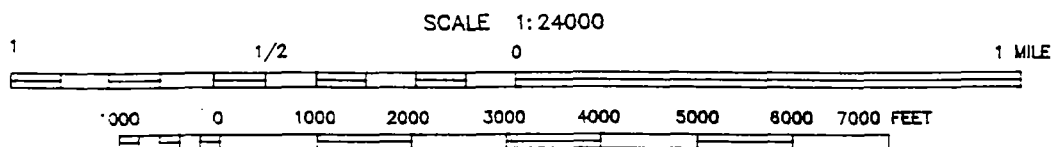
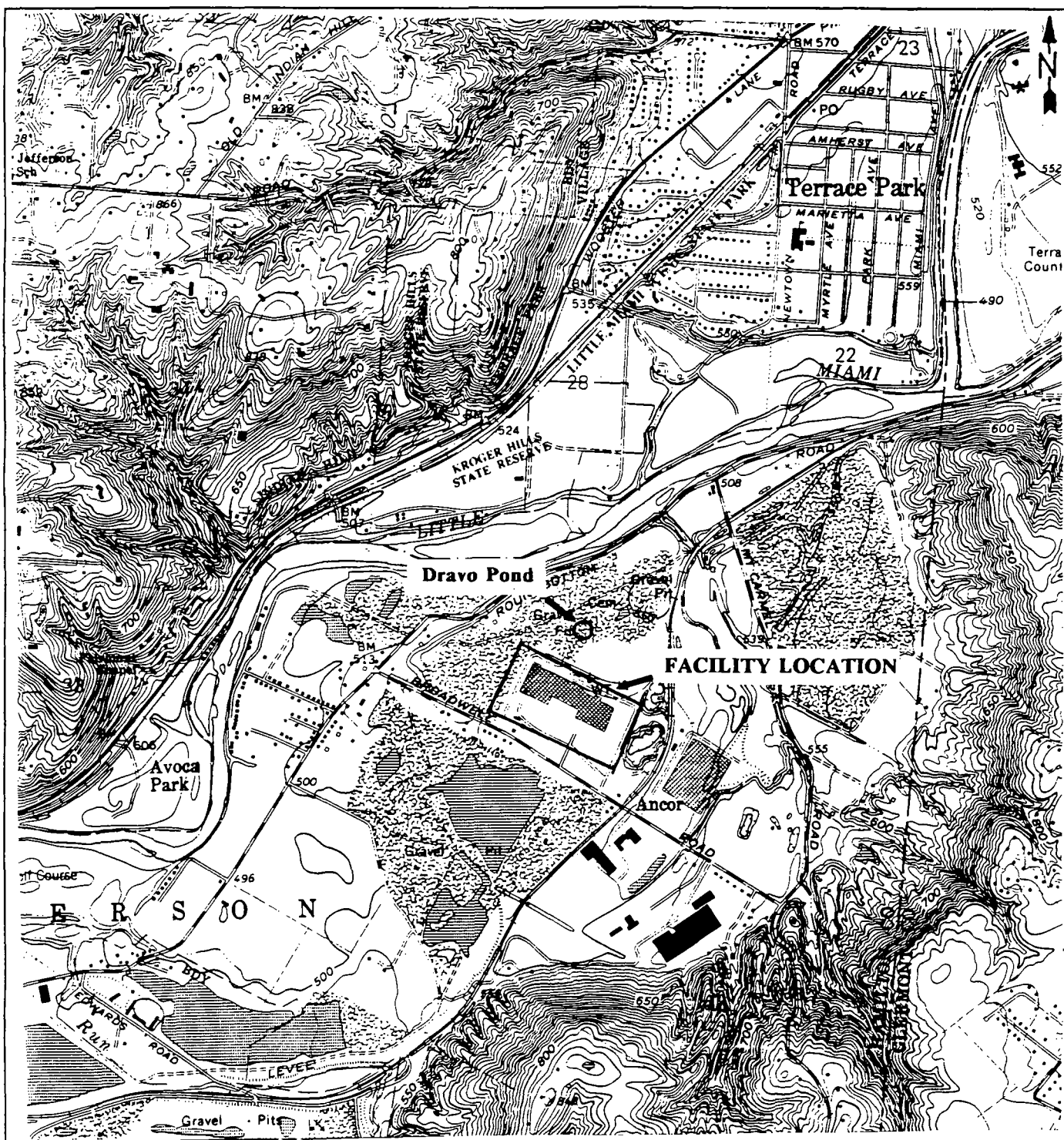
PRC Environmental Management, Inc. (PRC), was tasked by the U.S. Environmental Protection Agency (U.S. EPA) Region 5 to evaluate the Heekin Can, Inc. (Heekin), site as a potential candidate for the National Priorities List (NPL) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA). PRC has reviewed available file information and U.S. EPA Resource Conservation and Recovery Act (RCRA) files. On June 17, 1992, PRC conducted a reconnaissance inspection of the Heekin site. Based on the information summarized below, PRC recommends that the site be deferred to the RCRA program for possible corrective action.

Site Location

The Heekin site is located approximately 10 miles east of Cincinnati in Anderson Township, Hamilton County, Ohio (Figure 1). The site occupies about 77 acres (Burgess & Niples, Limited, 1983). A 17-acre pond lies immediately north of Heekin, in a 60-acre sand and gravel pit operation owned by the Dravo Company (Dravo). The Heekin site is bordered to the north and west by Round Bottom Road, to the south by Broadwell Road, and to the east by Norfolk and Western Railroad (PRC, 1992). The Little Miami River is located about 0.5 miles north of the site (USGS, 1961).

Site History

The Heekin site was owned by American Nitro Corporation in the early 1900s, which used the site during World War I to manufacture munitions. Baldwin Piano purchased the property sometime after World War I, and used the site to manufacture World War II bomb fuses. Baldwin Piano also built the original plant building sometime before the 1950s. Heekin purchased the property in 1957 and began manufacturing three-piece steel cans in 1958. Heekin began producing two-piece aluminum cans in 1973 but discontinued this operation on July 17, 1989. Sometime during the 1970s, Heekin sold the facility to Diamond International Corporation (Diamond) who, in turn, sold the plant to Wesray Corporation (Wesray) in the 1980s. Heekin's stock went public in 1985, and Heekin indicated that Wesray no longer held an interest in the company (A.T. Kearney, Inc., 1989).



Heekin Can. Inc.
Cincinnati, Ohio

FIGURE 1
FACILITY LOCATION



SOURCE: USGS. 1961

QUADRANGLE LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.

Site Operations

Currently, Heekin manufactures about 2 million steel, food or aerosol cans and 9.5 million can ends daily. Manufacturing of a three-piece steel can begins with the coil line, where coiled metal rolls are cut into sheets. A protective coating is sprayed on the metal sheets, and labels are applied to the outside of the sheets along litho-press lines. The lithoid sheets are then cut into individual body blanks, formed, and welded into cylinders. A side-seam stripe coating and end seals are then added to each can. Heekin also manufactures additional end seals for these cans, including aerosol domes, which the purchaser applies to the cans after the product is added (A.T. Kearney, Inc., 1989).

From 1975 to 1986, Heekin discharged treated wastewater from its wastewater treatment unit to Dravo's 17-acre pond (Dravo pond) just north of the site. The wastewater treatment unit treated rinse water from a chromium conversion coating process used to apply a surface coating to metal cans. The wastewater treatment unit reduced hexavalent chromium in the rinse water to trivalent chromium creating a chromium sludge and wastewater effluent (A.T. Kearney, Inc., 1989). Although Heekin drummed the sludge and shipped it off site for disposal, there is evidence that at one time, the sludge was also discharged to the Dravo pond (OEPA, 1973).

Regulatory History

On November 17, 1980, Diamond submitted a RCRA Part A permit application for the Heekin site to U.S. EPA, indicating that hazardous wastes (F001, D001, D002, and D007) were generated and stored on site in containers and tanks (Diamond International Corporation, 1980). The Dravo pond was not included on the original or subsequent Part A permit applications. In 1983, Heekin submitted a RCRA Part B permit application covering drummed hazardous waste storage areas and a waste paint/solvent collection tank (which was never constructed). However, the application did not address the wastewater treatment unit because Heekin was awaiting a decision from U.S. EPA as to whether the wastewater treatment unit was covered under RCRA (A.T. Kearney, Inc., 1989).

From 1973 to 1986, Heekin was not operating under a National Pollutant Discharge Elimination System (NPDES) permit and placed wastewater into Dravo's pond, potentially affecting local ground-water reservoirs that supplied area residents with drinking water (A.T. Kearney, Inc., 1989; ODNR, 1992). The Ohio Environmental Protection Agency (OEPA) protested this practice and asked that Heekin develop alternative disposal practices. Heekin proposed several disposal possibilities and concluded that discharge through a sewer line to the Little Miami River was the best alternative. Heekin planned to construct the sewer from 1978 through 1980, but the proposed sewer line was never constructed. Heekin tried to obtain an NPDES permit from 1976 to 1980 but failed to submit an application showing that the wastewater treatment unit met effluent quality standards for the Little Miami River (U.S. EPA, 1982).

In 1984, Heekin submitted a land application treatment system permit application to dispose of wastewater from the sanitary sewer and wastewater treatment unit. The permit was issued in 1984. The land application treatment system was installed and implemented as planned, although in January 1986, the nature of the wastewater changed because Heekin replaced the chromium conversion coating process with a zirconium coating process. Later in 1986, the facility changed to a hydrofluoric-sulfuric nitric acid rinse. The wastewater from this new rinse process was routed into the wastewater treatment unit. The land application treatment system was put into service on June 2, 1987.

On July 17, 1989, Heekin stopped treating wastewater from the acid rinse process when the aluminum can line was shut down. Because the wastewater treatment unit was no longer used to treat chromium rinsewater, and because Heekin claimed less than 90-day storage of hazardous waste, OEPA determined that a Part B permit was no longer in order. However, OEPA required a closure plan for the wastewater treatment unit. A closure plan for the wastewater treatment

unit was submitted and approved by OEPA in 1986 (A.T. Kearney, Inc., 1989). U.S. EPA acknowledged closure in 1989 (OEPA, 1989). The land application treatment system currently disposes of treated sanitary wastewater only (A.T. Kearney, Inc., 1989).

A.T. Kearney, Inc., conducted a preliminary review/visual site inspection (PR/VSI) of the Heekin site for U.S. EPA in August 1989. The PR/VSI identified 23 solid waste management units (SWMU) and one area of concern. The SWMUs included the inactive wastewater treatment unit, drummed waste storage areas, waste collection points in the manufacturing building, and emission controls. According to the PR/VSI, all SWMUs had a low or moderate potential for release to soil, ground water, surface water, and air. The Dravo pond was not considered a SWMU because it is not on Heekin's property.

PRC scored the Heekin site using the RCRA prioritization system on December 8, 1990. The discharge to Dravo's pond was not included in the prioritization score because it was not addressed in the PR/VSI.

Conclusions and Recommendations

The Dravo pond is a potential source of ground-water contamination. Wastewater containing elevated levels of chromium was discharged into the pond, which may not be lined. Chromium sludge may also have been disposed of in the pond.

Although the Dravo pond is not on Heekin's property, PRC considers it one of Heekin's SWMUs regulated by RCRA for the following reasons:

- The Dravo pond is adjacent to the Heekin site.
- The treated wastewater was "hard piped" (directly connected) to the pond (PRC, 1992).
- Heekin controlled the discharge to the pond.
- An agreement between Heekin and Dravo authorized Heekin to discharge wastewater effluent to the pond (Heekin, 1992).

PRC recommends that the Heekin site be deferred to the RCRA program and that the Dravo pond be evaluated for possible corrective action. PRC also recommends that the PR/VSI and RCRA prioritization system scoring be revised to include the Dravo pond.

REFERENCES

- A.T. Kearney, Inc., 1989, Preliminary Review/Visual Site Inspection (PR/VSI) Report for the Heekin Can, Inc. (Heekin) Site (August).
- Burgess & Niples, Limited, 1983, Hydrogeologic Investigation on the Heekin Site (April).
- Diamond International Corporation, 1980, Part A Permit Application, EPA Form 3510-1 (November 17).
- Heekin, 1992, Telephone Conversation between Stan Lynn, PRC Environmental Management, Inc. (PRC), and Dave Reusch (September 25).
- Ohio Department of Natural Resources (ODNR), 1992, Well Logs for the State of Ohio.
- Ohio Environmental Protection Agency (OEPA), 1973, Ground-Water Evaluation for the Heekin Site. Prepared by John Noyes (June 8).
- OEPA, 1989, Letter to E.R. Jackson, Heekin, from Thomas Crepeau, Division of Solid and Hazardous Waste Management (October 30).
- PRC Environmental Management, Inc. (PRC), 1992, Screening Site Inspection (SSI), Heekin Site Reconnaissance Field Notes (June 17).
- United States Environmental Protection Agency (U.S. EPA), 1982, Interoffice Memorandum to Heekin Part B File from Dan Banaszek and Peter Tong (December 22).
- United States Geological Survey (USGS), 1961, 7.5-Minute Topographical Quadrangle Map, Madeira, Ohio. Photorevised 1988.